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# Permanent School Lunch

School lunch came of age on June 4, 1946, when the President signed the National School Lunch Act, to be administered by the Department of Agriculture. The act serves a twofold purpose—"to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States through grants—in—aid and other means."

As the President pointed out in his message to Congress in January, "We have the technical knowledge to provide plenty of good food for every man, woman, and child in this country, but despite our capacity to produce food we have often failed to distribute it as well as we should." The permanent school lunch program is a definite step toward correcting this situation in so far as it concerns underprivileged school children.

The school lunch program of previous years has borne fruit in improving the health and well-being of great numbers of school children, but uncertainty about its continuation under the system of year-to-year authorization hindered the program's development. In communities where school lunch is needed most, outside financial assistance generally has been required to underwrite the program.

Permanence of the program is expected both to encourage its continuation in schools that now have it and to increase its spread to other needy schools and communities. It is estimated that participation next year will run to approximately 8 million school children in 48,000 schools, as compared with last year's participation of somewhat more than 6 million children in 45,000 schools.

# Provisions of the Act

Under the act Congress has authorized the appropriation each year of funds for program operation. After setting aside 10 million dollars of the amount appropriated for nonfood assistance—funds to be used in procuring equipment for storing, preparing, or serving food—75 percent of the remainder is to be apportioned for use among the States according to (1) the number of school children between the ages of 5 and 17 in the State and (2) the need for assistance as indicated by a comparison between national and State per capita incomes.

The States will match funds for the program on the basis of 1 dollar for each Federal dollar from 1947 through 1950,  $1\frac{1}{2}$  dollars for each dollar from 1951 through 1955, and 3 dollars for each dollar thereafter. If the State per capita income falls below the national per capita income, the amount contributed by the State will be decreased by the percentage it is below.

Not more than  $3\frac{1}{2}$  percent of the funds appropriated in any fiscal year may be used for administrative expenses. The sum remaining after apportionment is made to the States and administrative expenses are met will be available for buying foods for direct distribution among the States and schools participating, according to needs as determined by local school authorities. Food also will be available under section 32 funds (Public Law No. 320, as amended). Funds apportioned to any State will be disbursed by the State educational agency or other agency designated by the governor.

Under the act, lunches served to school children must meet prescribed minimum nutritional requirements on the basis of tested nutritional research and must be available without cost, or at a reduced cost, to children who are unable to pay the full cost. Particular consideration must be given on school lunch menus to the use of foods abundant in the school area and to available commodities donated by the Secretary of Agriculture under the act or purchased through section 32 funds.

States, State educational agencies, and schools participating in the school lunch program are required to keep accounts and records available for inspection and audit, that will indicate compliance with the act.

Children between the ages of 5 and 17 are eligible to participate. Schools eligible for program benefits include public or nonprofit private schools of high school grade or under, and, in Puerto Rico, non-profit child-care centers certified by the Governor.

### Nutritional Status

World War II pointed up the need for reinforcing the nutritional status of American children. Selective Service traced many rejections of young men for military duty to nutritional deficiencies. The director of the Selective Service System stated that while 2 to 3 percent of the physical defects encountered were specified as malnutrition and rickets or disorders almost wholly connected with nutrition, the rejections with which nutrition or feeding had much to do accounted for 40 to 60 percent.

This evidence of defective nutrition traced back to poor feeding of children in their school years. Consequently even during the war, when demand for most agricultural products was heavy and no general price-depressing surpluses existed, Congress authorized specified amounts of section 32 funds for the school lunch program. In 1942, Congress authorized 50 million dollars for the purpose, and since that year it has authorized the use of such funds each year.

With the end of the war, another problem loomed: Finding a market for our expanded agricultural production when the argency of military, war-service, and export demands wore off. Agricultural production had soared about 30 percent above that of prewar years, yet in 1945 our

civilian population consumed only about three-fourths of total production. Where could we find a market for the other fourth-without diverting it to nonfood uses?

The obvious market was that section of our civilian population who ate less than their nutritional requirements. Since good nutrition begins in childhood, the answer to two problems—of raising our nutritional status and of utilizing our expanded agricultural production—evidently was to make available to children at school a lunch that would fortify them against malnutrition during their growing years and develop in them an appreciation of well-selected food, high in nutritive value.

#### School Lunch in the U. S.

While the Federal school lunch program in the United States dates back only to 1935, the program began elsewhere many years ago. The earliest record of a "school lunch" in this country was that served by the Children's Aid Society of New York in 1853 in a vocational school for the poor. In 1894 the Star Association in Philadelphia developed a system of feeding in elementary schools. General interest in school feeding followed the publication of a book by Robert Hunter in 1904 and another by John Spargo in 1906 that pointed out the need for a school feeding program to combat undernourishment in children. Afterward, lunch programs were started in many elementary schools, usually by voluntary organizations or welfare groups. By 1918 a large percentage of urban high schools were serving lunch, but in the elementary schools the program lagged.

School lunches began to appear in rural areas also. State and Federal extension workers in home economics set up the plans. Most of the projects were carried on cooperatively by parents, teachers, and local organizations.

Although the school lunch movement expanded somewhat during the 1920's, it was not until the next decade when the depression spot-lighted the need for supplementing home feeding with school feeding that the movement made considerable headway. Federal aid was extended through various Government bureaus, principally for rural areas. Malnutrition among children came to be considered a matter of national concern. The Works Progress Administration (later the Work Projects Administration) and the National Youth Administration were particularly active in school lunch work.

Events important in school lunch history include the enactment of Public Law No. 320, section 32. This legislation authorized (1) the use of 30 percent of the yearly customs receipts for the development of new outlets for farm products, and (2) the establishment of the Federal Surplus Commodities Corporation (later known as the Surplus Marketing Administration), authorized to use section 32

funds to buy surplus farm commodities for distribution outside regular trade channels. Thus, SMA linked the problem of farm surpluses and the problem of malnutrition among school children and it opened the way for a school lunch program on a national scale.

#### School Lunch-European Plan

Although the school lunch program in the United States is a comparatively recent development, the custom of providing lunches for school children was adopted by certain European countries many years ago. The first recorded school lunch program in Europe was conducted at Munich in 1790, when municipal soup kitchens established for the umemployed served needy school children as well. Germany, Norway, and Sweden later passed extensive municipal legislation to make school lunches possible.

In France, the school lunch movement started in 1849 when the National Guard in Paris donated money to help poor children obtain an education. Funds growing out of this gift later provided for school canteens, and the movement spread to other districts. Paris made the provision of lunches for all its school children compulsory in 1882. Holland in 1900 provided food and clothing for poorer school children, and in 1906 Switzerland took up the same idea.

England became aroused over the menace of malnutrition among its school children in 1902, during the Boer War, when it was noted that only two out of every five men were physically fit to serve their country as soldiers. A program of school feeding was begun. It was financed by private funds, to be augmented by public funds if necessary. In 1906 Parliament passed the Provision of Meals Act, which transferred school feeding from charities to local educational authorities. This legislation was not mandatory, but later nearly all school authorities in England and Wales provided meals or milk for their children.

The many other European countries that have passed national or municipal legislation include Scotland, Denmark, Italy, Finland, Austria, Belgium, Russia, and Spain. In the late 1920's school feeding was begun in Latin America.

WAR FOOD ORDER 63

USDA announced early in July that it did not plan to reinstate import controls over coffee brought into the United States, its territories, or possessions, notwithstanding a previous announcement to the effect that such controls were suspended for the duration of the subsidy period. Controls governing the importation of coffee under WFO 63 were removed on November 29, 1945. The action was taken in compliance with a directive from the Office of Economic Stabilization which called for subsidy payments to importers of green coffee who met the requirements of the directive.

#### CERTIFICATE PLAN FOR WHEAT PRODUCERS

In accordance with the provisions of the Price Control Extension Act of 1946, wheat producers who were required to sell their wheat under provisions of WFO 144 between May 23, 1946, and July 1, 1946, will be given an opportunity to receive a certificate from the Commodity Credit Corporation under which they may choose a subsequent date to determine the sales price of such wheat.

Producers are to furnish satisfactory evidence, before August 25, that a certain quantity of wheat was sold under the requirements of WFO 144 and to pay to the Commodity Credit Corporation the amount for which the wheat was sold. Evidence of sale and payment to CCC is to be made through County Agricultural Conservation Committees. Producers will be given a certificate requiring the CCC to pay the market price for the wheat sold as of any date the producer elects prior to April 1, 1947. A producer may not elect a date prior to the date that his notice of election of the date for determination of the purchase price is given.

#### ALLOCATION OF RICE RECOMMENDED

The International Emergency Food Council (which recently replaced the Combined Food Board) on August 5 recommended a distribution of rice during the second half of 1946. Allocable supplies during this period were estimated at 1,324,000 metric tons. According to the recommended distribution, China will receive 280,000 tons; India, 270,000 tons; Ceylon, 180,000 tons; Malaya, 170,000 tons; and the Philippines, 145,000 tons. Smaller-consuming countries will receive proportionate quantities.

The Council emphasized that world rice supplies continue to be far short of requirements. Allocable supplies during July-December are sufficient to provide only about 50 percent of the imports required for basic subsistence in those rice-consuming countries for which allocations have been recommended. Maintenance of an adequate subsistence diet in China and India alone during this period would require imports of more rice than is available for allocation to all claimants.

SUSPENSION OF RESTRICTIONS CONTINUED ON FOUR CRUDE OILS UNDER WFO 29

Suspension of restrictions on deliveries of crude cottonseed, peanut, soybean, and corn oils to refiners for refining purposes, under War Food Order 29, has been continued through September 30. This is a continuation of the suspension which has been in effect since September 1943.

# Frozen Food Outlook

Around 1924, fruits, vegetables, and some poultry, meats, and fish began to appear in a few retail stores in gleaming white frozen food cabinets. Mostly the items were fancy products that sold at prices higher than those charged for fresh or canned foods of the same variety. Since that time the development of the frozen food industry has lagged behind expectations. Today the volume of frozen fruits and vegetables, for example, constitutes only about 1.5 percent (farm-weight basis) of these products in fresh and processed form. What are the prospects for expansion in the frozen foods field? Is freezing likely to become a major type of food processing—or will frozen foods continue as a specialty line?

Foremost among the factors that have slowed down progress in frozen food merchandising has been the wartime difficulty in getting equipment for processing frozen foods, for retailing them, and for keeping them at proper temperatures in home refrigerators after they were bought. Other factors have been the lack of conveniently located storage facilities and the relatively high prices of frozen foods.

Against these initial difficulties may be set the continuing advantages of food freezing:

- 1. Frozen foods are convenient. Sold from self-service cabinets in neat, small packages, they're a trifle to carry away.
- 2. They are easy to prepare. In fact, when you buy them the preparation has already been begun, and the waste has been eliminated.
- 3. They keep perfectly in the freezer compartment of your refrigerator until they are needed.
- 4. Frozen vegetables may be superior in flavor to fresh vegetables that have been handled.
- 5. The vitamin content is apt to be higher in frozen vegetables than in fresh (except immediately after they are picked).

Of the annual production of fruits and vegetables, an estimated 35 billion pounds are suitable for freezing. The estimate excludes tomatoes and potatoes, although there might even be a small market for these commodities in frozen form. A quarter of this potential—about 9 billion pounds of fruits and vegetables—might actually be frozen.

## Frozen Meat and Poultry

Fruits and vegetables are probably a smaller grouping in the potential frozen foods future than meat and poultry. About half the 18 billion pounds of meat and 4 billion pounds of poultry sold annually might be

retailed in frozen form. Therefore sales of frozen meat and poultry might be larger in volume and much higher in value—and this is not counting the possible sales volume of fish, a commodity especially well adapted to freezing.

Frozen meats are not necessarily superior in quality to fresh meats, and they are no more convenient to prepare and cook. And frozen meats would cost more per pound—although they would be boned and trimmed. But the costs of cutting, packaging, and added refrigeration in wholesaling and retailing channels would be offset by savings in the labor required in retail stores and by reduced costs of transportation. Moreover, cutting and preparation in central locations would make possible a more advantageous use of edible waste products. With these savings, the cost of retailing meat might even be cut.

Another advantage of freezing to the consumer would be standardization of weight and quality: Wherever she bought it, the housewife could expect to find the same quality in a branded frozen steak or roast. In self-service stores, frozen meats would stay in condition better than prepackaged fresh meats.

Quite probably, however, the retailing of precut and prepackaged fresh meat will be the first step toward the retailing of frozen meat—the reason being the present lack in retail stores of low-temperature equipment for merchandising frozen meat. The retailing of precut frozen meats may be expected to raise objections from butchers employed in retail stores.

### Other Frozen Products

Ice cream, a nutritious food as well as a luxury product, is a best seller. It would probably be a better seller if it should become a staple in self-service retail food stores. The addition of storage space for frozen foods in home refrigerators would also encourage increased consumption of ice cream.

Use of frozen eggs for individual consumers would make greater quantities of them available during off seasons and help to keep them within reach of low-income families. Bakeries and other processors have been using frozen eggs for several years.

Today the number of precooked frozen products on the market is small. They may be expected to find an increasing welcome. There is a growing tendency for people to occupy smaller living quarters, with fewer cooking facilities, and increasing numbers of women who have jobs outside their homes have less time for preparing meals.

It seems quite likely that frozen precooked foods similar in kind to the canned precooked foods will appear in the stores. The prices will of course have to fit the consumers' pocketbooks if the products are to become generally popular. Precooked specialty items in frozen

foods have been sold for some time already in frozen food stores. Among the newer products are cellophane-covered frozen bricks of orange juice, and frozen hamburgers, French fried potatoes, and chicken a la king.

There is a new bag out, too, to carry frozen foods home in. It has a lacquered neoprene lining, a fiberglas interlining, and will keep frozen foods frozen until you get them into your refrigerator—even when that takes 8 hours or more.

So far, frozen foods seem to have gained consumers' acceptance as luxury products. But if they are to reach the tables of most American families every day in the week they must compare favorably in quality, flavor, and price with fresh and canned products. Although top quality is generally the rule in frozen foods, we may probably expect in the future to find the same differences in the grade (and price) of a commodity as we find today among fresh and canned products. These items should of course be labeled to show the grade, to uphold the good name of the industry and to enable consumers to buy intelligently and with confidence.

The U. S. Department of Agriculture has established standards for grades of 17 different fruits and vegetables. Score factors include color, uniformity of size, absence of defect, character of fruit, and normal flavor and odor. These standards are used in the Federal inspection and grading service.

### Equipment and Transportation

The frozen food industry is faced with the fact that its products require more care in handling, all the way from grower to consumer, than fresh foods or foods processed in some other way. Until enough suitable facilities are provided for that care in merchandising channels and consumers' homes the new industry will have unbalance and difficulties.

It is impossible to keep frozen foods at proper temperatures in many of the electrical home refrigerators. A moderate-priced small home freezer to augment the frozen storage capacity of the refrigerator now owned would help many to solve this problem.

Additional transportation facilities will be needed to take care of the expected expansion in frozen-food production on the Pacific coast. The U.S. Department of Agriculture is now considering the possibilities of a mechanically refrigerated railroad car that would maintain temperatures low enough under adverse conditions to haul such products. This car would be adaptable for other uses also.

### Home Freezers and Locker Plants

Notwithstanding the rapid development of frozen food locker plants and home freezing units to date, it is probable that a large-scale development of these facilities is unlikely. War shortages of some

foods and surpluses from Victory gardens have encouraged homemakers to store products either in their own freezers or in locker plants, but when foods of all kinds are more plentiful it is probable that home freezing and the storage of food in locker plants will tend to diminish proportionately. Although the quality of home-prepared food may be higher, the advantages in money savings appear to be slight. The general trend has been to make greater use of products and goods produced outside the home. Such an attitude among homemakers should increase sales of frozen foods in retail stores. Locker plants in rural areas will probably continue to operate, but individual freezing operations are not considered likely to increase in volume.

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# FAR-REACHING DECISION IN WAREHOUSE ACT CASE

When the Secretary of Agriculture issues to a warehouseman a license under the U. S. Warehouse Act he has exclusive and complete jurisdiction over the operations of that warehouseman. This is the recent decision of the U. S. Circuit Court of Appeals for the Seventh Circuit in Rice & Co. v. Chicago Board of Trade et al. The decision, which passed on the constitutionality of the act, is considered by Federal officials to be the most far-reaching ever rendered concerning the act.

Purpose of the U. S. Warehouse Act, which was passed in 1916, was to transform agricultural products while in storage into a form of collateral that would be generally acceptable to lending agencies as security for loans by providing safe places of storage where products would be kept free from spoilage and improper removal. More than 2 billion dollars worth of agricultural products are being handled annually through warehouses operating under the act. In the 30 years of its existence no storer in any federally licensed warehouse has suffered any financial loss.

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# GRAIN DEALERS NO LONGER REQUIRED TO OFFER "EXCESS WHEAT" TO CCC

The provision of WFO 144 that required country shippers and merchandisers to offer "excess wheat" to the Commodity Credit Corporation at the close of market each week was suspended by amendment 14, effective July 31, 1946.

Formerly all wheat stocks not allocated for export or restricted domestic use were offered to CCC for a 2-day period at the end of each week. In the absence of ceiling prices on wheat it was considered impracticable to require shippers to continue weekly offers.

#### 1946 TOBACCO PRICE-SUPPORT PROGRAM

The price-support program for 1946 crops of flue-cured, fire-cured, burley, Maryland, dark air-cured, cigar filler, and cigar binder tobaccos was announced by USDA on July 19.

The program is essentially the same as the 1945 program except in the case of flue-cured tobacco where purchases were made to stabilize prices and obtain requirements of British Empire countries, military requirements delivered under lend-lease, and civilian requirements sold for cash. This year these countries will resume purchases through regular trade channels. Therefore, on the 1946 crop of flue-cured tobacco, loans will be made only for the purpose of supporting prices in accordance with provisions of existing legislation.

Loan rates to cooperating producers will be 90 percent of the parity prices on flue-cured, burley, Maryland, cigar filler, and cigar binder tobaccos. For fire-cured tobacco these rates will be 75 percent of the burley rate. For dark air-cured and Virginia sun-cured tobacco the rates will be 66 2/3 percent of the burley rate.

#### WFO 9 TO CONTROL OILSEED MEALS FOR FERTILIZERS

WFO 105, amendment 1, which controlled the acquiring of oilseed meals for fertilizer purposes from July 1, 1945, to June 30, 1946, was terminated on August 5 by USDA. However, restrictions on the acquisition or use of edible oilseed meals for fertilizer purposes during the 1946-47 season were provided in an amendment to WFO 9.

The continued tight supply of protein meals for feeding purposes requires continued restrictions on the quantity of edible oilseed meals that can be used for fertilizers, USDA said, and the prohibition of delivery or receipt of such meals for fertilizer before September 1, 1946, as provided in the amendment to WFO 9. But the amendment does not forbid the making of contracts before September 1, 1946, for the delivery of edible oilseed meal for fertilizer purposes after that date.

#### U. S. PUBLIC SERVICE HOSPITALS EXEMPT UNDER FATS AND OILS ORDER

Under amendment 27 to WFO 42, United States Public Health Service hospitals will be included in the list of agencies exempt from restrictions covering purchases of fats and oils. This amendment became effective July 1.

# Baker's Cheese Made From Dried Skim Milk

A method of making baker's cheese from dried skim milk, instead of from liquid skim milk as has been the practice, has been announced by USDA.

Use of dried skim milk promises certain advantages over the conventional method. The manufacture of baker's cheese need no longer be confined to the areas where fresh skim milk can be obtained, but it may be extended to areas far distant from the receiving and drying plants. Thus the market for dried skim milk could be increased.

Some economies also would be possible if the cheese were manufactured at or near the bakeries where it is to be used, because the costs of transportation, storage, and freezing usually incurred in handling and shipping baker's cheese could be reduced. Bakers themselves could store the relatively nonperishable dried skim milk and make the cheese as their needs arose.

The method was developed by USDA's Bureau of Dairy Industry, primarily in response to requests from baker's cheese manufacturers, who have found it increasingly difficult recently to meet the demand for their product. Much of the fresh skim milk formerly available for making baker's cheese now goes to the drying plants.

## Process Simple and Economical

Baker's cheese is used by baking establishments for making cheese pies, cheese cakes, and other similar soft cheese pastries. The process for reconstituting the dried skim milk and making the cheese is simple and economical, and the usual equipment in a cottage cheese or Cheddar cheese factory can be used. Baking tests with cheese made by the Bureau's method have given satisfactory results, the dairy specialists report.

The method calls for reconstituting the dried skim milk with a quantity of water that will produce a milk with a higher solids content than normal milk. Good lactic starter and a small amount of rennet are added to the reconstituted milk and it is allowed to coagulate from 4 to 16 hours, depending on the temperature. When the curd is firmly coagulated it is placed in muslin bags (without being heated or cut) and allowed to stand until most of the whey has drained off. It is then ready for use or for packaging in suitable containers for marketing.

The yield of finished cheese varies from 1 3/4 to 2 1/4 pounds per pound of dried skim milk, depending on the conditions of manufacture and the amount of moisture wanted in the cheese.

# The Citrus Industry Grows

A steady increase in the production of U. S. citrus fruit during a decade resulted in a good supply of this wholesome food when it was needed to help fight a war. It helped to provide both the civilian population and the armed forces with a nutritious and adequate diet. In addition, substantial quantities of citrus juices were shipped to our allies, principally the United Kingdom, during the war. At the same time, growers took excellent care of their groves and production has established a new record each year since the 1941-42 crop year.

Citrus fruits were introduced into the Florida peninsula before 1565 by early Spanish explorers. Some two centuries later settlers of that area found wild citrus groves. Citrus growing on a commercial scale was started in both Florida and California about 1875. The industry in Florida made rapid progress until a heavy freeze in the winter of 1894. It took 14 years for Florida growers again to reach a production equaling the 1894-95 estimate.

Citrus fruits are thought to have been introduced into California about 1769 from plantings that had been under cultivation in Arizona for perhaps 30 years. However, the beginning of the commercial citrus industry in California dates from 1876-85, when the construction of various railroads linking the citrus areas with the East was completed. The industry grew faster when the Washington Navel orange, fruiting about 1878 at Riverside, Calif., turned out to be much superior to any other orange then grown.

Texas is the industry's comparative newcomer. The first commercial plantings in the Rio Grande Valley of Texas were made about 1910. Grape-fruit growing expanded rapidly in this area. This year the Valley produced over a third of the grapefruit grown in the United States.

# Quarter Century of Growth

The citrus industry, in its infancy in 1910, has grown rapidly in the last quarter century. The indicated record production of 184 million boxes for the current year is more than 630 percent of the 29 million boxes produced in the 1915-16 crop year, about 360 percent of the production 20 years ago, about 235 percent of 1935-36, and more than 125 percent of 1940-41.

California, Arizona, Florida, and Texas now grow practically all the citrus fruit grown in this country. California and Arizona grow practically all the lemons, almost half of the oranges, and approximately an eighth of the grapefruit. Florida grows about half of the oranges, slightly more than half of the grapefruit, and most of the tangerines. Texas grows over a third of the grapefruit and about a twentieth of the oranges.

To what uses are 184 million boxes of citrus fruit put? Until about 10 years ago, most of the crop was sold in fresh form. Even then, less than 10 percent of citrus fruit was processed. Twenty years ago only 4 percent of the crop was canned. Processing outlets during the current year, however, will utilize about 38 percent of the crop. In Florida, about 69 percent of the grapefruit crop and about 39 percent of the orange crop were processed this year. About 43 percent of Texas grapefruit was canned.

Processing outlets are expected to take about a third of the California-Arizona lemon crop and an eighth of the orange crop. The citrus crop this year will provide about 66 pounds of fresh citrus fruits and about 13 pounds of processed citrus fruits for each man, woman, and child in the United States. This country produces more than half of the citrus fruit produced in the world.

The upward trend in U. S. citrus fruit production is expected to continue during the next few years. Important new plantings have been made recently in Texas and Florida. In addition, increases in the bearing surfaces of trees now in production, the fruiting of trees not now of bearing age, and the excellent care given groves in recent years should increase production.

## Prices

Whether this upward production trend continues over a longer period will depend largely on prices. Growers would react to unfavorable prices first by spending less in grove care and by planting fewer groves or none. If the unprofitable prices continued, some growers would pull out their trees. Since new citrus plantings require several years to start producing and many more years to reach maximum production, extremes in making upward or downward production adjustments are very difficult to avoid.

The citrus industry hopes to avoid such painful adjustments by continuing to expand demand along with production. Among conditions unfavorable to the industry are: (1) The reduction of export outlets anticipated as citrus groves in the Eastern Hemisphere are rejuvenated after the war; (2) the discontinuance of lend-lease exports; (3) the reduction of buying by the armed forces; (4) the anticipated increase in marketings of other fruits such as bananas; and (5) the record citrus fruit production now anticipated during the next few years.

Most growers are keenly aware of these adverse conditions—and are doing something about the situation. For example, posters and other merchandising material appear in the retail stores, on streetcars, and elsewhere extolling the merits of oranges, lemons, grapefruit, and tangerines to stimulate demand for these commodities. The cost of this promotional material—and it is considerable—is borne by the growers, shippers, and processors.

The industry is expecting processed outlets to take more citrus fruit in the future. The demand for processed citrus fruit has increased steadily during the last few years, and many growers think this increase will continue. In proof, they point to the good demand for a liberal supply of processed citrus fruit to date this year, but they often fail to mention the fact that competition from other processed juices and fruits has been light.

#### New Products

Great strides have been made in improving processed citrus fruit products and many fine brands are now on the market. Besides the familiar processed orange juice, grapefruit juice, blended grapefruit and orange juice, lemon juice, and grapefruit segments, several new processes have been developed that will aid in expanding market outlets. One new development is a method for processing tangerine juice, and this product was marketed for the first time this year. Some processors are now freezing orange juice (both single strength and concentrated), grapefruit segments, orange segments, and small quantities of tangerine segments. Dried powdered citrus juices are also on the market.

Growers in most areas have proposed and favored marketing orders to regulate the handling of their citrus fruits under the Agricultural Marketing Agreement Act of 1937. About 83 percent of the citrus crop is now marketed under these orders, which regulate the handling of Florida oranges, grapefruit, and tangerines; of California-Arizona oranges and lemons; and desert-area grapefruit. The orders are administered in the producing areas by committees of growers. The regulations recommended by the committees become effective upon approval by the Secretary of Agriculture. This marketing mechanism, used in the past to provide a steady and smooth flow of citrus to the markets, is available to help in smoothing out the rougher spots in the downward adjustment of production that may become necessary in adjusting supply to demand at a fair price.

Reductions in production costs may be possible in future years. Growers probably will be able to cut production costs per box by greater mechanization and specialization in citrus growing. Many steps already have been taken in this direction. These include the employment of picking crews that move from grove to grove throughout the season and the employment in many areas of crews of specialists for applying fertilizers and sprays, and for carrying out various cultural practices. One prospect for a reduction in production costs is the likelihood of higher yields per tree. Most U. S. groves have not yet reached the optimum producing age.

In the next few years, great advances should be made in designing better equipment and machinery to grow and market citrus fruits. For instance, it should be possible to work out a better, quicker, and cheaper way to handle boxes of fruit in the groves and in the markets.

The pallet might be used to advantage for some of this handling. A pallet is a platform, often about 4 feet square, on which about 2 dozen boxes of fruit can be stacked and which is designed in a way that the pallet with its load can be picked up by a fork truck and set down on a truck or in a packing house. The handling of citrus fruit by this method in the groves and packing houses would reduce labor costs.

Growers generally realize that if the demand for citrus fruits decreases, only the better quality and preferred sizes should be marketed in the fresh form. Foresighted growers will market good quality and desirable sizes now in order to build up a reputation that will help them sell their fruit later when selling is more difficult. Actually, the shipment today of only good-quality fruit should materially aid in maintaining the future demand for citrus fruits.

Shippers should also be able to obtain a slightly larger share of the consumer's dollar by packing in consumer-size packages. This packaging can be accomplished by machine, and the higher sales price for fruit so packed should generally cover the extra cost with something to spare.

#### Transportation and Marketing Cost Reductions

As important as reductions in production and packing costs are reductions in transportation and marketing costs that allow the grower a larger share of the consumer's dollar. It has often been pointed out that the grower of citrus fruits obtains a smaller share of the consumer's dollar than middlemen, including transportation agencies.

Much has been written about redesigning the refrigerator car to lighten the overhead weight, to increase the payload, and to improve refrigeration. It also was demonstrated during the war that heavier loadings of citrus fruits in the refrigerator cars now in use were practicable. Transportation methods worked out along these lines should lower transportation rates. If the door of the refrigerator car were widened slightly, to permit boxes of fruit stacked on pallets to be loaded by fork truck, considerable savings in the labor now required to load a car could be effected.

The loading of palletized packed fruit by fork truck for shipment by motortruck and boat should work out well. The unloading and handling of palletized citrus fruits by fork truck in most of the terminal markets should result in further labor savings and a reduction of marketing costs. In many instances, the palletized unit of packed fruit could remain unbroken from packing house to retailer and all necessary handling in the wholesale market be done by fork truck. Besides saving on labor costs, handling by fork truck would reduce the amount of bruising of fruit and package breakage in terminal markets.

Spoilage of citrus fruits in retail stores can be reduced by refrigeration and consumer packaging. At present, however, the cost

of these methods is sometimes more than the savings in shrinkage and spoilage. Such losses will be reduced if the housewife is influenced to handle fruit with care in the store.

Growers expect to produce plenty of citrus fruits in the next few years. The cooperation of the shippers, transportation agencies, wholesalers, retailers, and consumers will be needed in order to maintain a fair price to the growers. With a fair price the grower will produce and market an abundance of citrus fruits, both fresh and canned. This abundance will increase the volume of business for retailers, wholesalers, and transportation agencies. Increased volume should enable the middleman to handle citrus fruit profitably at a lower cost per unit. The goal is worth while: Fair prices to the grower, reasonable prices to the consumer, and plenty of citrus fruits for everyone.

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#### USDA TO SPONSOR WOOL IMPROVEMENT PROJECT

Approval of a cooperative project to facilitate the marketing of wool owned by the Commodity Credit Corporation has been announced by USDA. The project will be carried out under the general direction of the Production and Marketing Administration, with the cooperation of the Texas Agricultural and Mechanical College and local grower associations.

Under the project, wool acquired by CCC under the Government's wool-purchasing program will be prepared for market under conditions which Department officials believe will result in a product that will compete better on the market than the domestic wool now handled. With the assistance of State-college officials and representatives of local grower associations, approximately 500,000 pounds of wool will be prepared for market under improved methods. The cost of the project is expected to be returned in the greater sales value of the wool handled. The project will continue in operation through the rest of the year.

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#### GERMINATION LABELING REQUIREMENTS FOR KENTUCKY BLUEGRASS SUSPENDED

Requirements of the Federal Seed Act with respect to labeling new-crop Kentucky bluegrass seed for germination have been suspended for the period from August 1 to October 15, 1946.

This action was taken to facilitate the movement of 1946 seed in areas where it is needed for fall seeding to supplement carry-over stocks estimated to be below normal.

#### ABOUT MARKETING:

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach, and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

#### Addresses:

Can We Use the Harvest? by Clinton P. Anderson, Secretary of Agriculture, at Ann Arbor, Mich. June 22, 1946. 9 pp. (Mimeographed)

Marketing Responsibilities of PMA, by Robert H. Shields, Administrator, Production and Marketing Administration, at Chicago, Ill. June 19, 1946. 6 pp. (Mimeographed)

#### Publications:

World Food Prospects for 1946-47. (Office of Foreign Agricultural Relations) July 1, 1946. 21 pp. (Multilithed)

Industry Report—Canned Fruits and Vegetables, Production and Wholesale Distribution. (Bureau of Foreign and Domestic Commerce in cooperation with U.S. Department of Agriculture) June 1946. 83 pp. (Multilithed) (Note: Issues for June and subsequent months may be obtained from the U.S. Department of Commerce.)

Fruits (13 Noncitrus), Production and Utilization 1934-45. (Bureau of Agricultural Economics) June 1946. 46 pp. (Mimeographed)

Air Transport of Agricultural Perishables. MP 585. (U. S. Department of Agriculture) January 1946. 44 pp. (Printed)

Sugar During World War II. (Bureau of Agricultural Economics)
June 1946. 33 pp. (Mimeographed)

Production of Manufactured Dairy Products, 1944. (Bureau of Agricultural Economics) April 1946. 57 pp. (Multilithed)

Feed Consumed by Livestock, 1941-42, by States. (Bureau of Agricultural Economics) April 1946. 108 pp. (Multilithed)

Relationships Between Properties of Cotton Fibers and Appearance of Carded Yarns. (United States Department of Agriculture) March 1946. 47 pp. (Multilithed)

Tentative United States Standards for Grades of Frozen Sweet Cherries. (Effective June 1, 1946) 8 pp. (Mimeographed)

